

UCRL-94562
PREPRINT

IRCULATION COPY
OBJECT TO RECALL
IN TWO WEEKS

THE Ar-Be (ARGON-BERYLLIUM) SYSTEM

H. Okamoto
L. E. Tanner

This paper was prepared for submittal to
Bulletin of Alloy Phase Diagrams

April 29, 1986

Lawrence
Livermore
National
Laboratory

This is a preprint of a paper intended for publication in a journal or proceedings. Since changes may be made before publication, this preprint is made available with the understanding that it will not be cited or reproduced without the permission of the author.

DISCLAIMER

This document was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement recommendation, or favoring of the United States Government or the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the University of California, and shall not be used for advertising or product endorsement purposes.

The Ar-Be (Argon-Beryllium) System
39.948 9.01218

By H. Okamoto and L.E. Tanner
Lawrence Livermore National Laboratory

According to the band calculation using an empirical pseudo-potential, ArBe having a NaCl structure is unstable which is unlike other Ar compounds with the group II elements (Mg, Ca, Zr, Cd) [79Alt].

Cited Reference

79Alt: A.M. Altshuler, Yu.Kh. Vekilov, and G.R. Umarov, "The Stability of the Inert Gas A⁺BE²⁺ Compounds", Phys. Lett., 73A(3), 216-217 (1979). (Equi Diagram; Theory)

Acknowledgments

Ar-Be evaluation contributed by L.E. Tanner, L-217, Lawrence Livermore National Laboratory, P.O. Box 808, Livermore, CA 94550 and H. Okamoto, 877G, Lawrence Berkeley Laboratory, Berkeley, CA 94720. This work was supported by the U.S. Department of Energy under contract no. W-7405-Eng-48 and American Society for Metals. Literature searched through 1985. L.E. Tanner and H. Okamoto are ASM/NBS Data Program Category Editors for binary beryllium alloys.